

Chess2Web Project

Problem:

Chess games are played everywhere from on-line to local clubs and coffee shops. Games are often recorded and many appear in books and magazines. Support for displaying a game on-line is currently somewhat limited. Some chess software packages allow for creating web pages from games, but they usually require creating a new page for each game. Placing games in a database and having one page that serves as a template is not commonly available.

Opportunity:

Developing a software program which is capable of keeping a library of chess games and displaying games on a web site will provide the following benefits.

- One HTML file allowing for easy changes to give the display the look and feel of the web site as opposed to reforming many HTML documents for each game added.
- Recognition for players and clubs as they could submit their games.
- Recognition for the developer. This will provide a great opportunity to gain greater experience with the .NET framework. It will demonstrate the developer's skill set with a working example.

Objectives:

- The system will need to be able to read Portable Game Notation (PGN) which most chess programs can export. Later more file formats may be added.
- The PGN format does only provide the type of piece and the destination square for each move unless it is legal for more than one of that piece type to move to the same square and then more information is given. The software will need to resolve the starting squares for each move. This can be done by keeping track of where each piece is and looking at what moves are legal for a given position.
- The system outputs the game's moves in a common format. This format can be stored in a database and be retrieved by a JavaScript AJAX call.
- Client Side JavaScript can read the common format and display the game.
- ASP.NET web interface to provide searching and selecting games to view. At some point user may be allowed to submit games on-line.

Current Project Status (October 11, 2009)

- Read PGN File – Complete
- Resolve the starting and ending squares for each move. - Complete
- Output the game in a common format. - Complete
- Client side JavaScript to display the game - Complete
- ASP.NET web interface – In Progress (goal for completion 2/1/10)

System Implementation:

- Delphi.Net assembly for resolving the starting and ending squares for a given move.
- C# assembly for reading PGN data files and generating the common output.
- C# assembly for interacting with the library.
- C# Windows Forms application for providing user interaction when importing data files and providing a preview mode for viewing games in a Webbrowser control locally. The ASP.NET interface could support adding games to the database at a later date. The Windows Forms application allows the application to be given to a club using a web server without ASP.NET support.
- JavaScript client side control.
- ASP.NET Web Interface for on-line searching and database access from the website.
- Delphi.Net Unit Test
- C# Unit Test

Screen shots of the system:

Preview mode inside the chess2web software



The screenshot shows a window titled "Preview" with a chessboard on the left and game details on the right. The chessboard is an 8x8 grid with columns labeled A-H and rows labeled 1-8. The pieces are arranged as follows: Row 8: Rook, Knight, Bishop, King, Queen, Bishop, Knight, Rook. Row 7: Pawn, Pawn, Pawn, Pawn, Pawn, Pawn, Pawn, Pawn. Row 6: Empty. Row 5: Empty. Row 4: Pawn, White Pawn, White Pawn. Row 3: Empty. Row 2: White Pawn, White Pawn, Empty, White Pawn, White Pawn, White Pawn. Row 1: Rook, Knight, Bishop, King, Queen, Bishop, Knight, Rook. The square E4 is highlighted in yellow, and the square E5 is highlighted in purple. Below the board are navigation buttons: <<, <, >, >>. The game details on the right are:

Event	120/40+60/20+30'
Site	Waukesha WI
Date	2009.09.28
Round	?
White	test game
Black	Fritz 10
Result	1/2-1/2
ECO	D20
Annotator	.mike
PlyCount	42
TimeControl	40/7200:20/3600:1800

1. c4 d5 2. d4 dxc4 3. e4 e5 4. Nf3 Bb4+ 5. Nc3 exd4 6. Nxd4 Ne7 7. Bf4 Nbc6 8. Bxc4 Bd7 9. O-O O-O 10. Qh5 Rc8 11. Rfd1 Nxd4 12. Rxd4 c6 13. Rad1 Bc5 14. f3 Qa5 15. R1d3 Be6 16. Bb3 Bb6 17. e5 f5 18. exf6 gxf6 19. Bh6 Rce8 20. Rd1 Rf7 21. Re1 Bd7 1/2-1/2

A List of the games in the library

	White	Black	Event	Round	Date	Result
▶	test game	Fritz 10	120/40+60/2...	?	9/28/2009	1/2-1/2
	?	M Lawrence	G/90	?	1/16/2008	1-0
	?	M Lawrence	G/90	?	1/16/2008	1-0
	?	M Lawrence	G/90	?	1/16/2008	1-0

View Delete Import Games Done

The view form Firefox

The screenshot shows a Mozilla Firefox browser window displaying a chess game interface. The browser's address bar shows the file path: `file:///C:/Users/mike/Documents/Projects/Personal Web Project/ChessViewer/CI`. The page content is divided into three main sections:

- Chessboard:** A standard 8x8 chessboard with files A-H and ranks 1-8. The white knight on c3 is highlighted in yellow. The black king is on e5.
- Game Statistics:**

Event	120'/40+60'/20+30'
Site	Waukesha WI
Date	2009.09.28
Round	?
White	test game
Black	Fritz 10
Result	1/2-1/2
ECO	D20
Annotator	,mike
PlyCount	42
TimeControl	40/7200:20/3600:1800
- Moves List:**

1. c4 d5 2. d4 dxc4 3. e4 e5 4. Nf3 Bb4+ 5. Nc3
exd4 6. Nxd4 Ne7 7. Bf4 Nbc6 8. Bxc4 Bd7 9.
O-O O-O 10. Qh5 Rc8 11. Rfd1 Nxd4 12. Rxd4
c6 13. Rad1 Bc5 14. f3 Qa5 15. R1d3 Be6 16.
Bb3 Bb6 17. e5 f5 18. exf6 gxf6 19. Bh6 Rce8 20.
Rd1 Rf7 21. Re1 Bd7 1/2-1/2

At the bottom of the browser window, there is a search bar with the text "Find: assoc" and navigation buttons for "Next", "Previous", "Highlight all", and "Match case". The status bar at the very bottom shows "Done".